

**REMARKS**

Claims 1-3, 5, and 6 are pending in this application.

**§ 103(a) Rejection of Claims 1-3, 5, and 6 over *Shimomura* and *Kawanishi***

Applicants respectfully traverse the rejection of claims 1-3, 5, and 6 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,539,310 of Shimomura ("Shimomura") in view of Japanese Patent Publication No. 11-123182 to Kawanishi ("Kawanishi"). Shimomura and Kawanishi do not render obvious the subject matter that is recited in claim 1.

"A conclusion of obviousness requires that the reference(s) relied upon be enabling in that it put the public in possession of the claimed invention." MPEP § 2145. Furthermore, "[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the results would have been predictable to one of ordinary skill in the art" at the time the invention was made. MPEP §2143.01(III) (internal citation omitted). Moreover, "[i]n determining the differences between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious." MPEP § 2141.02(I) (emphasis in original; internal citations omitted).

Shimomura fails to teach or suggest "means for calculating at least one of approximate values of bone weight, water weight, and muscular weight of the body, as well as means for judging a somatotype of the body . . . classified on the basis of a

correlation between the approximate values as calculated and the body weight," as recited in claim 1 (emphasis added).

Shimomura discloses "a body type determination apparatus 10 [that] comprises a bioelectric impedance meter 20 equipped with a weight scale and a control box 40." Shimomura at col. 3, lines 56-58. "[T]he bioelectric impedance meter 20 equipped with the weight scale comprises: the constant current feeding electrodes 21a and 21b; ... the voltage measuring electrodes 22a and 22b; a voltage measuring circuit 24 functioning as an impedance measurement device for measuring a voltage between said voltage measuring electrodes 22a and 22b; [and] a body weight measuring unit 25 functioning as a body weight measurement device for measuring a body weight of a subject." Id. at col. 4, lines 9-19. "[T]he control box 40 comprises: a data input device 41." Id. at col. 4, lines 21-22. "[T]he apparatus displays a relationship between the BMI and the FMI and/or between the BMI and the LMI as a result of measurement by way of a graph and/or illustration." Id. at col. 3, lines 42-45.

The final Office Action asserts, "Shimomura is expressly concerned with and discloses a means for calculating (45) an approximate value of muscular weight as claimed." Final Office Action at page 5, numbered paragraph 12 (citation omitted). But, in Shimomura, the LMI (Lean Mass Index) does not correspond to "an approximate value of muscular weight." The LMI is equal to lean mass/body height<sup>2</sup>. Shimomura at col. 3, line 40. The lean mass in this formula is equal to body weight - body fat mass. Id. at col. 5, line 59. But simply subtracting the body fat mass from the body weight does not provide the muscle weight, since the human body contains many other

components such as bone, body fluids including blood and water, organs, and other tissues.

Shimomura discloses, “although . . . the LMI has been indicated as an index of the lean tissue, the representation mode may be modified so that the LMI may be treated as an index of the muscular tissue . . . . [P]roviding an indication of whether the muscle mass being more or less rather than the indication of the lean tissue mass . . . can help the subject understand the indication more easily.” Id. at col. 8, lines 54-63 (emphasis added). However, an “index” of the muscular tissue in Shimomura does not constitute “an approximate value of muscular weight,” as recited in claim 1. An “index” is a number (as a ratio) derived from a series of observations and used as an indicator or measure. Merriam-Webster Online Dictionary. Shimomura teaches that the LMI is an “index” in the sense that a higher LMI indicates that “the muscle mass [is] more” and a lower LMI indicates that the muscle mass is “less.” But this mere correlation does not suggest that the LMI constitutes “an approximate value” of the muscular weight.

An index that correlates to a particular value is not an “approximation” of the value itself, but merely indicates by its rise or fall whether the correlated value roughly rises or falls, respectively. To give an analogy, a car insurance company may use age as an “index” of the probability of a driver to go a certain period of time without an accident. A greater age may correspond to a safer driver, and a lesser age may correspond to a less safe driver. But this relationship does not mean, for example, that a driver of 30 years of age has an approximate probability of going without an accident of 30%. The relationship merely signifies that there is a correlation between age and

safety. Similarly, an increased LMI may roughly indicate that more muscle mass has accumulated, and a decreased LMI may roughly indicate a decrease in muscle mass, through a correlation between lean mass and muscle mass. But the LMI value itself is not an approximate value of the muscle mass. Therefore, the determination of LMI by *Shimomura* does not constitute a calculation of “at least one of approximate values of bone weight, water weight, and muscular weight of the body,” as recited in claim 1 (emphasis added).

Further, *Kawanishi* does not overcome any of these deficiencies of *Shimomura*. The final Office Action cites *Kawanishi* for an alleged teaching of “a belt (9) including a plurality of pairs of electrodes . . . .” *Id.* at page 3, numbered paragraph 8. Without acceding to the final Office Action’s characterization of *Kawanishi*, Applicants submit that *Kawanishi* at very least fails to disclose or suggest any feature related to the “means for calculating” and “means for judging” of claim 1. *Kawanishi* therefore does not overcome the deficiencies of *Shimomura*.

Accordingly, claim 1 is allowable over *Shimomura* and *Kawanishi*, and this rejection should be withdrawn. Additionally, dependent claims 2-3, 5, and 6 are also allowable over *Shimomura* and *Kawanishi* at least by virtue of their dependence from independent claim 1.

### **CONCLUSION**

In view of the foregoing remarks, Applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

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